



Date: August 20, 19 82

FORM IV-2 (Obverse) (12-81)

Operator's Well No. #111218-2

API Well No. 47 085 5848

State County Permit

STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil xx / Gas / (If "Gas", Production / Underground storage / Deep / Shallow /)

LOCATION: Elevation: 850' Watershed: Buky Run District: Grant County: Ritchie Quadrangle: Cairo 7 1/2'

WELL OPERATOR PETROLEUM DEVELOPMENT CORPORATION DESIGNATED AGENT John R. Mitchell

Address PO Box 26, 103 East Main Street Bridgeport, West Virginia 26330

Address PO Box 26, 103 East Main Street Bridgeport, West Virginia 26330

OIL & GAS ROYALTY OWNER Griffin Producing Company

Address 320 South Bost, Suite #1504 Tulsa, Okl. 47103 600

COAL OPERATOR

Address

SURFACE OWNER Raymond McVay

Address Rt 1 Cairo, West Virginia 26337 Acreage 110.37

COAL OWNER(S) WITH DECLARATION ON RECORD:

Name

Address RECEIVED

Name AUG 30 1982

Address OIL AND GAS DIVISION WV DEPARTMENT OF MINES

FIELD SALE (IF MADE) TO:

Address

COAL LESSEE WITH DECLARATION ON RECORD:

Name

Address

OIL & GAS INSPECTOR TO BE NOTIFIED

Name Samuel N. Hersman

Address PO Box 66 Smithville, West Virginia 26178

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease other contract x / dated June 4th, 19 82, to the undersigned well operator from Magnum Oil Corporation

(IF said deed, lease, or other contract has been recorded:)

Recorded on June 29th, 19 82, in the office of the Clerk of the County Commission of Ritchie County, West Va., in Book 145 at page 671. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill deeper / Redrill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify)

—planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

04/12/2024

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1615 WASHINGTON STREET EAST CHARLESTON, WV 25311 TELEPHONE: (304) 348-3092

PETROLEUM DEVELOPMENT CORPORATION Well Operator By John R. Mitchell Area Manager of Operations

BLANKET BUND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN)

Address

GEOLOGICAL TARGET FORMATION, Marcellus Shale

Estimated depth of completed well, 5900 feet Rotary x / Cable tools /

Approximate water strata depths: Fresh, 210 feet; salt, 410 feet.

Approximate coal seam depths: none Is coal being mined in the area? Yes / No x /

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (Kinds, Sizes, Depths set, Perforations: Top, Bottom). Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form Iv-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY
APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE
IF OPERATIONS HAVE NOT COMMENCED BY 5-3-83.
BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

04/12/2024

The undersigned coal operator / owner / lessee of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.


Date: , 19


By

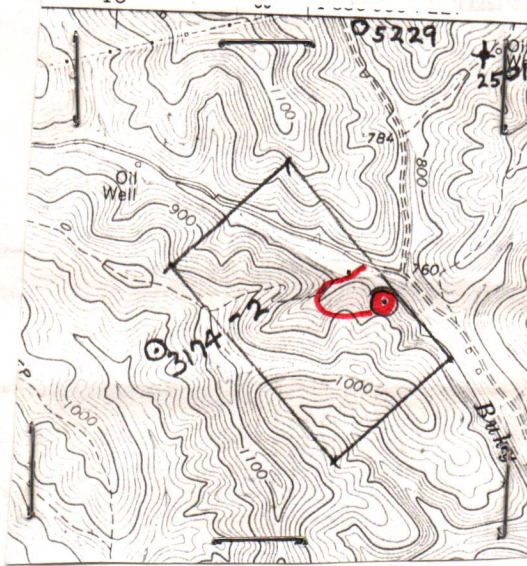
Its

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE CAIRO 7.5

LEGEND

Well Site 

Access Road 











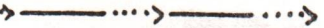



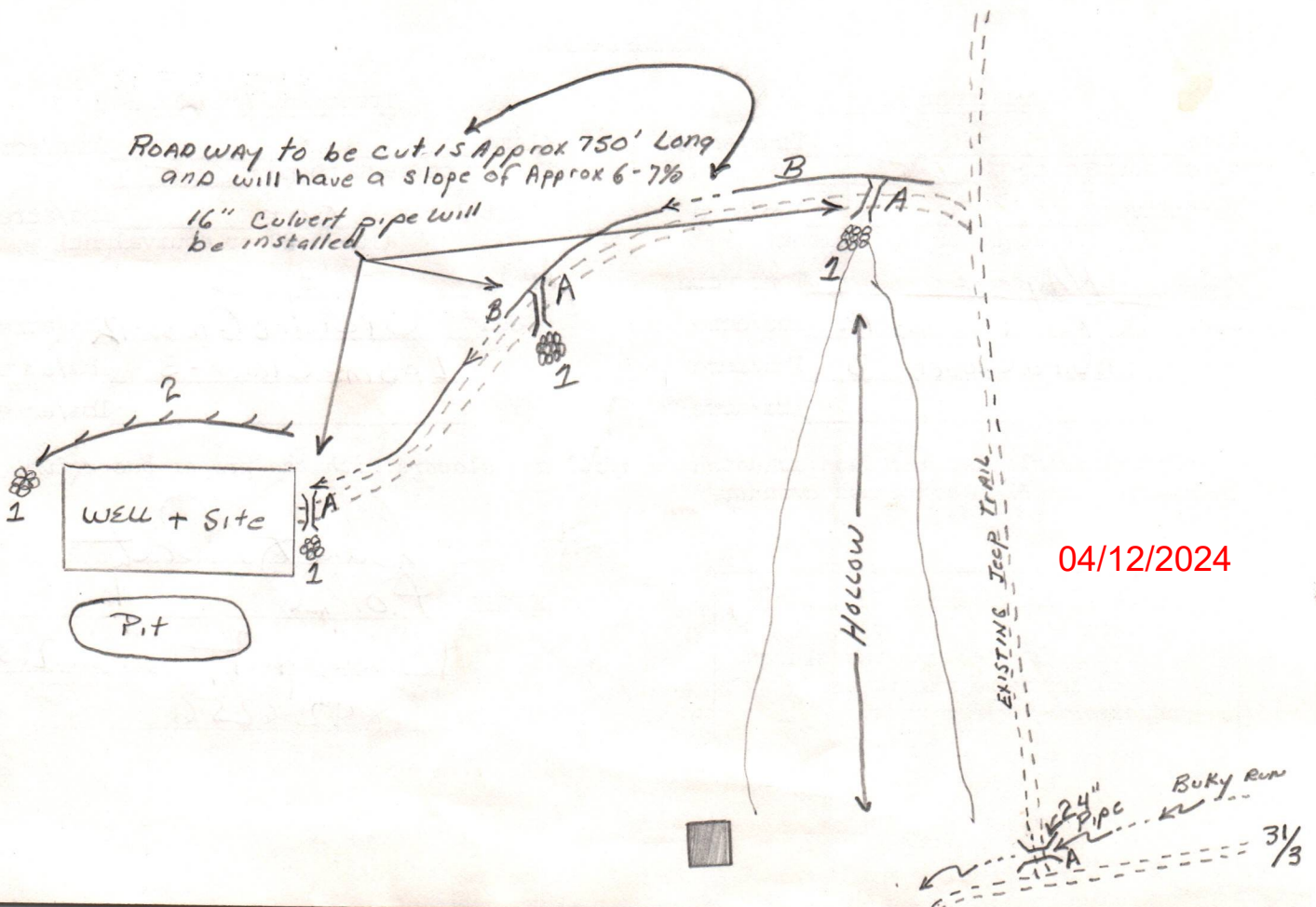
WELL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, wells, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

Land Use: Pasture Hayland Cropland Woodland

LEGEND

Property boundary 	Diversion 
Road 	Spring 
Existing fence 	Wet spot 
Planned fence 	Building 
Stream 	Drain pipe 
Open ditch 	Waterway 





IV-9
(Rev 8-81)

DATE 8-18-82
WELL NO. 111218-2
API NO. 47-085-5848

State of West Virginia
(Department of Mines)
(Oil and Gas Division)

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Petroleum Development Corp. DESIGNATED AGENT John Mitchell
Address P.O. 26, BRIDGEPORT, W. Va. 26330 Address P.O. 26 BRIDGEPORT, W. Va. 26330
Telephone 842-6256 Telephone 842-6256
LANDOWNER Raymond McVay SOIL CONS. DISTRICT Little Kanawha
Revegetation to be carried out by Seeding Contractor (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 8-19-82 (Date)

Janett Newlon
(SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>DRAIN PIPE</u> (A) Spacing <u>(min. 12" I.D.)</u> Page Ref. Manual <u>2.7</u>	Structure <u>Rip-Rap</u> (1) Material <u>Stone</u> Page Ref. Manual <u>2.9</u>
Structure <u>DRAINAGE Ditch</u> (B) Spacing <u>N/A</u> Page Ref. Manual <u>2.12</u>	Structure <u>Diversion Ditch</u> (2) Material <u>Earthen</u> Page Ref. Manual <u>2.12</u>
Structure _____ (C) Spacing _____ Page Ref. Manual _____	Structure _____ (3) Material _____ Page Ref. Manual _____

RECEIVED
AUG 30 1982
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I	Treatment Area II
Lime <u>3</u> Tons/acre or correct to pH <u>6.5</u>	Lime <u>3</u> Tons/acre or correct to pH <u>6.5</u>
Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)	Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)
Mulch <u>N/A - 2</u> Tons/acre	Mulch <u>N/A - 2</u> Tons/acre
Seed* <u>ORchard Grass - 12</u> lbs/acre	Seed* <u>ORchard Grass - 12</u> lbs/acre
<u>LADina Clover - 3</u> lbs/acre	<u>LADina Clover - 3</u> lbs/acre
_____ lbs/acre	_____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

NOTES: Please request landowner's cooperation to protect new seeding for one growing season. Attach separate sheets as necessary for comments.

PLAN PREPARED BY Jane R. Doty 04/12/2024
ADDRESS P.O. 26
Bridgeport, W. Va. 26330
PHONE NO. 842-6256



**Petroleum
Development
Corporation**

103 East Main Street
P. O. Box 26
Bridgeport, West Virginia 26330

Phone: 304-842-3597

Ret-5848

State of West Virginia
Department of Miens
Oil and Gas Division
1615 Washington Street East
Charleston, West Virginia 25311

Attention: Mr. Ted Streit

RE: House Bill #1254

Dear Mr. Streit:

With regards to the payment to be made to the royalty owner on this property, please be advised that the lease does not provide for a flat well royalty or any similar provision for compensation. The royalty on this lease is based on volume of oil or gas to be extracted, produced or marketed.

Very truly yours,

PETROLEUM DEVELOPMENT CORPORATION

John R. Mitchell
John R. Mitchell
Area Manager of Operations

JRM/mjg

RECEIVED

AUG 30 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

Handwritten marks

RECEIVED

AUG 30 1983

OIL AND GAS DIVISION
WASHINGTON STATE

04/12/2024

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

		ACID (Bbls)	N ₂ (Mcf)	CO ₂ (1000 lbs)
1st Stage	46 perfs (3704-4819)	7	425	26
2nd Stage	37 perfs (3038-3668)	6	420	26 **
3rd Stage	28 perfs (2376-2832)	5	322	20 **


** 500 gal. paraffin inhibitor.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
K.B.-G.L.			0	10	
Sand, shale, red rock			10	1685	
Big Lime			1685	1788	1/4" stream oil @ 1700'
Big Injun			1788	1884	gas @ 1788' 44/10 thru 7" H ₂ O
Squaw			1884	1899	gas @ 1850' 80/10 thru 7" H ₂ O
Sand, shale			1899	2026	gas @ 1882' 80/10 thru 7" H ₂ O
Weir			2026	2100	
Sand, shale			2100	2237	
Sunbury shale			2237	2251	
Berea			2251	2270	
Sand, shale			2270	2363	
Gantz			2363	2417	
Sand, shale			2417	2660	
Gordon			2660	2675	
Sand, shale			2675	3262	
Huron			3262	4401	gas @ 3687' 4/10 thru 7" H ₂ O
Java			4401	4770	
Angola			4770	4873 T.D.	gas @ T.D. 4/10 thru 7" H ₂ O

(Attach separate sheets as necessary)

Petroleum Development Corporation
Well Operator

By: 
Date: March 25, 1983

04/12/2024

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JAN 17 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 85-5848

Oil or Gas Well _____
(KIND)

Company <u>Petroleum Development Corp.</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Raymond McVay</u>	16			Kind of Packer _____
Well No. <u>111218-2</u>	13			
District <u>Grant</u> County <u>Pitcher</u>	10			Size of _____
Drilling commenced <u>1-8-83</u>	8 1/4			
Drilling completed _____ Total depth _____	6 3/8			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Kirby Eskew / Mason Freeman / Robert Heater

Remarks: Union Drilling Rig # 6 Tool Pusher Bill Heater

Ran 966 foot of 8 5/8 casing
Halliburton ran 230 sacks total

1-9-83
DATE

Samuel N. Hensman
DISTRICT WELL INSPECTOR

04/12/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

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JAN 17 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 85-5848

Oil or Gas Well _____
(KIND)

Company Petroleum Dev. Corp.

Address _____

Farm Raymond McVay

Well No. 111218-2

District Grant County R.T.

Drilling commenced 1-8-83

Drilling completed _____ Total depth _____

Date shot _____ Depth of shot _____

Initial open flow _____ /10ths Water in _____ Inch

Open flow after tubing _____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.

Fresh water _____ feet _____ feet

Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____

NAME OF SERVICE COMPANY _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names _____

Remarks:
at 1790 ft. in Engine Sand hit gas & Oil
on 1-10-83 80-10ths. water through 7" casing
on 1-12-83 blew down to 30-10ths water through 7"
4000 ft deep at time of visit

1-12-83
DATE

Samuel W. Herndon
DISTRICT WELL INSPECTOR

04/12/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

RECEIVED

JUN - 9 1983

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 85-5848

Oil or Gas Well _____
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>Petroleum Development Corp.</u>	Size			
Address _____	16			Kind of Packer _____
Farm <u>Griffin Producing</u>	13			
Well No. <u>G-1</u>	10			Size of _____
District <u>Grant</u> County <u>Ritchie</u>	8 1/4			
Drilling commenced _____	6 5/8			Depth set _____
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used _____			Perf. top _____
Volume _____ Cu. Ft.				Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: Final suspect OK to Release

6-6-83

DATE

Samuel N. [Signature] 04/12/2024
DISTRICT WELL INSPECTOR



State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

WALTER N. MILLER
DIRECTOR

THEODORE M. STREIT
ADMINISTRATOR

July 1, 1983

Petroleum Development Corp.
P. O. Box 26
Bridgeport, W. Va. 26330

Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

<u>PERMIT NUMBER</u>	<u>FARM AND WELL NUMBER</u>	<u>DISTRICT</u>
RIT-5734	Westvaco/Griffin Production Co., #1815-2	Grant
RIT-5754	B. Wright/Griffin Producing Co., #2916-1	Grant
RIT-5772	R. McVay/Griffin Producing Co., #3174-2	Grant
RIT-5848	R. McVay/Griffin Producing Co., #111218-2	Grant
RIT-5878	Allegheny/Griffin Producing Co., #5613-2	Grant

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will remain under bond coverage for "life of wells." Reclamation requirements have been approved.....

Very truly yours,

Theodore M. Streit, Administrator
Office of Oil & Gas-Dept. Mines

TMS/

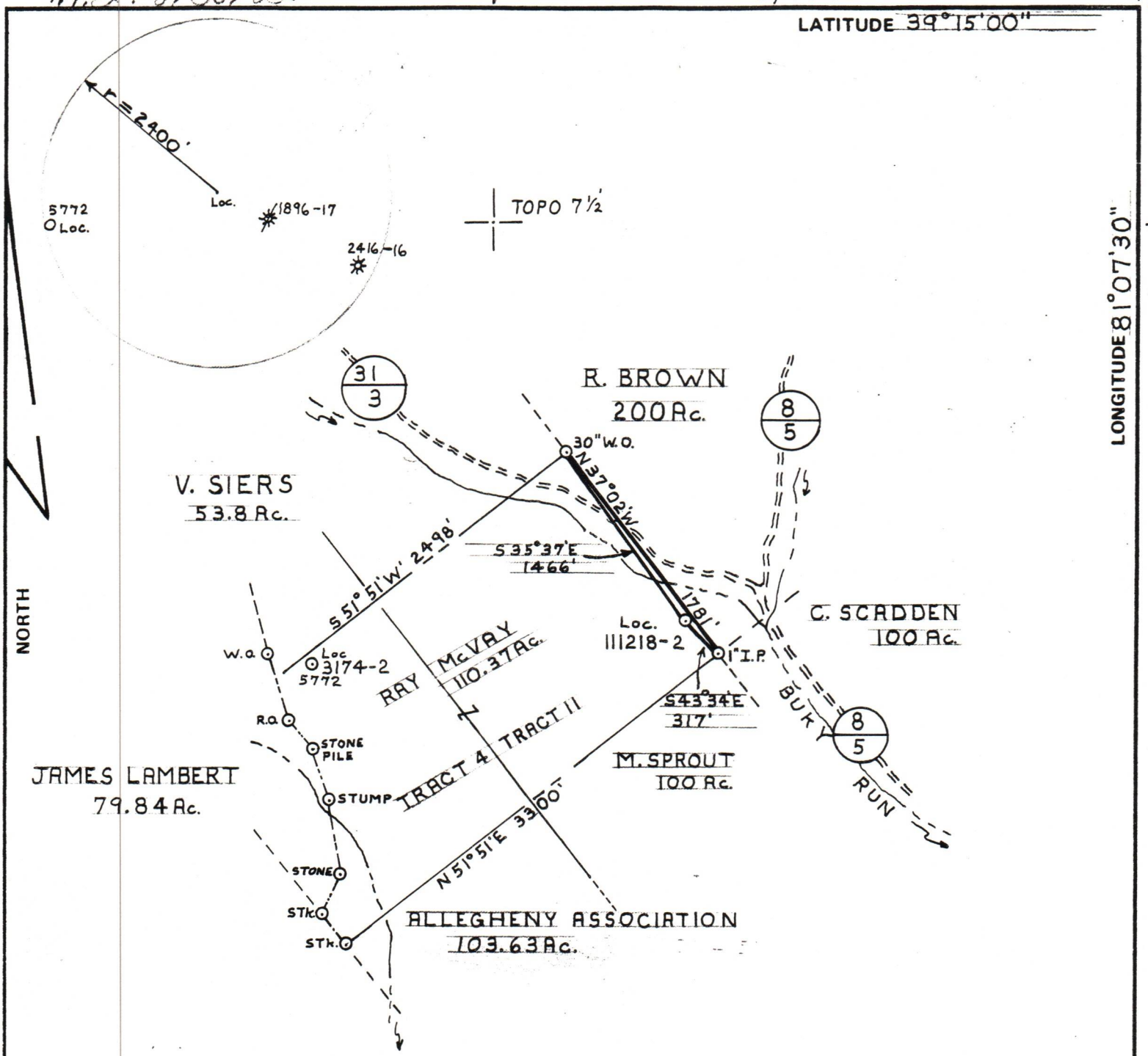
04/12/2024

M.F. 8/30/82

8,960'

LATITUDE 39°15'00"

LONGITUDE 81°07'30"



FILE NO. P.D.C. # 4 - P. 9. 37
 DRAWING NO.
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION INT. RT. 3 1/3 & RT. 8 1/5 = 760'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Paul H. Dean, Sr.
 R.P.E. 1856 L.L.S.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE AUGUST 19, 1982
 OPERATOR'S WELL NO. 11218-2
 API WELL NO.
47 - 085 - 5848
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 850' WATER SHED BUKY RUN
 DISTRICT GRANT COUNTY RITCHIE
 QUADRANGLE CAIRO 7 1/2
 SURFACE OWNER RAYMOND McVAY ACREAGE 110.37
 OIL & GAS ROYALTY OWNER GRIFFIN PRODUCING CO. LEASE ACREAGE 600 04/12/2024
 LEASE NO. 367500
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5900'
 WELL OPERATOR PETROLEUM DEVELOPMENT DESIGNATED AGENT JOHN R. MITCHELL
 ADDRESS P.O. BOX 26 ADDRESS P.O. BOX 26
BRIDGEPORT W.V. BRIDGEPORT W.V.

RIT. - 5848